



# United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO
09/586,201	06/02/2000	W Keith Fisher	SOLU:103	6110
75	590 08/25/2003			
Craige M Lundell Howrey Simon Arnold & White LLP 750 Bering Drive			EXAMINER	
		•	JUSKA, CHERYL ANN	
Houston, TX	77057		ART UNIT	PAPER NUMBER
		•	1771	
			DATE MAILED: 08/25/2003	

Please find below and/or attached an Office communication concerning this application or proceeding.

		I American Ala	V Anntinantal				
		Application No.	Applicant(s)				
Office Action Summany		09/586,201	FISHER ET AL.				
	Office Action Summary	Examiner	Art Unit				
	The MAIL INC DATE of this amount of the area	Cheryl Juska	1771				
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply							
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).  - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).							
Status 1)⊠	Responsive to communication(s) filed on 23 M	May 2003					
· · · · ·		<del></del>					
2a)□	• • • • • • • • • • • • • • • • • • • •	is action is non-final.	enconstinu on to the morito is				
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.							
Disposition of Claims							
4) Claim(s) 1-5,8-14 and 19-112 is/are pending in the application.							
4a) Of the above claim(s) <u>30-100</u> is/are withdrawn from consideration.							
5) Claim(s) is/are allowed.							
6)⊠ Claim(s) <u>1-5,8-14,19-29 and 101-112</u> is/are rejected.							
7) Claim(s) is/are objected to.							
8) Claim(s) are subject to restriction and/or election requirement.  Application Papers							
	•	_					
9) The specification is objected to by the Examiner.							
10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.							
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  11) The proposed drawing correction filed on is: a) approved b) disapproved by the Examiner.							
If approved, corrected drawings are required in reply to this Office action.							
12) ☐ The oath or declaration is objected to by the Examiner.							
Priority under 35 U.S.C. §§ 119 and 120							
13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).							
a) All b) Some * c) None of:							
1. Certified copies of the priority documents have been received.							
2. Certified copies of the priority documents have been received in Application No							
<ul> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>							
14)⊠ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).							
a) ☐ The translation of the foreign language provisional application has been received. 15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.							
Attachment(s)							
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s)							
J.S. Patent and Tr	ademark Office						

PTO-326 (Rev. 04-01)

Art Unit: 1771

#### **DETAILED ACTION**

#### Response to Amendment

1. Amendment B, submitted as Paper No. 12 on May 23, 2003, has been entered. Claims 1, 4, 5, 8-12, and 101 have been amended as requested, while claims 15-18 have been cancelled. New claims 102-112 have been added. Thus, the pending claims are 1-5, 8-14, and 19-112, with claims 30-100 being withdrawn as non-elected.

2. Amendment B is sufficient to withdraw the 112, 2<sup>nd</sup> rejection of claim 101 as set forth in section 4 of the last Office Action. Additionally, said amendment is sufficient to withdraw the prior art rejection based upon McCullough, as set forth in sections 6 and 11 of the last Office Action. In particular, the rejected claims have been amended to limit the conductive staple fibers to being "non-carbonized," while McCullough clearly teaches fibers which are heat treated to turn said fibers into carbon fibers. Furthermore, the rejections based upon Norris (US 3,690,057) are hereby withdrawn since the rejection lacks proper motivation to modify Norris as suggested in the last Office Action, section 14.

#### Claim Objections

3. Claim 109 is dependent upon cancelled claim 16. Thus, the claim has not been further examined on the merits. Appropriate correction is required.

## Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

Art Unit: 1771

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Page 3

- 5. Claims 1-5, 8-14, 19-29, and 101-112 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.
- a. Claims 1-5, 8-14, 19-29, and 101-105 include the new limitation that the staple fibers are "non-carbonized" conductive fibers. This limitation is new matter in that the specification as originally disclosed does not provide support for "non-carbonized." Any negative limitation or exclusionary proviso must have basis in the original disclosure. The mere absence of a positive recitation is not basis for an exclusion. The definition of "non-carbonized" is unclear from the disclosure. Hence, the term must be interpreted in its broadest sense as 'not including any carbon.' As such, the scope on "non-carbonized" is broader than what is disclosed as the invention. Thus, said claims are rejected as containing new matter.
- b. Claims 1-5, 8-14, 19-29, and 101-112 were previously amended to limit the staple fibers to being "non-metallic" fibers. This limitation is new matter in that the specification as originally disclosed does not provide support for "non-metallic." Any negative limitation or exclusionary proviso must have basis in the original disclosure. The mere absence of a positive recitation is not basis for an exclusion. The definition of "non-metallic" is unclear from the disclosure. Hence, the term must be defined as its common definition in the art. Hoechst Celanese's *Dictionary of Fiber and Textile Technology* defines a "metallic" fiber as "a

Art Unit: 1771

manufactured fiber composed of metal, plastic-coated metal, metal-coated plastic, or a core completely covered by metal." Since applicant only discloses two of these embodiments of metallic fibers (i.e., metal fibers and metal-coated plastic fibers), the claimed "non-metallic" limitation is broader in scope than the original disclosure of the invention and constitutes new matter.

- 6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

  The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
- 7. Claims 1-5, 8-14, 19-29, and 101-105 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Said claims include the limitation "non-carbonized" staple fibers. It is unclear what applicant intends to encompass by said limitation. Does applicant mean fibers which are not heat-treated to convert the fiber into a carbon fiber, fibers which do not include any carbon whatsoever, or animal fibers which have had the cellulosic material removed? (See Hoechst Celanese's *Dictionary of Fiber and Textile Technology*, page 23 for a definition of a "carbonizing" process for removing cellulosic material from animal fibers.)

## Claim Rejections - 35 USC § 102

- 8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
- 9. Claims 1-5, 9, 12-14, and 19-29 stand rejected under 35 USC 102(b) as being anticipated by US 4,420,534 issued to Matsui et al., for the reasons of record.

Art Unit: 1771

10. Claim 103 is rejected under 35 USC 102(b) as being anticipated by US 4,420,534 issued to Matsui et al.

As noted in the prior Office Actions, Matsui teaches antimony doped tin oxide (col. 2, lines 47-49). Hence, new claim 103 is anticipated by Matsui.

#### Claim Rejections - 35 USC § 102/103

11. Claim 101 stands rejected under 35 USC 102(b) as being anticipated by, or in the alternative, under 35 USC 103(a) as being unpatentable over the cited Matsui reference.

With respect to the new claim limitation "wherein the yarn exhibits a corona current of at least about  $0.3 \times 10^{-4}$  amps upon application of a voltage of about 4000 V to the yarn," it is asserted that claim 101 is still anticipated by or obvious over Matsui. Specifically, as noted in the last Office Action, the claim does not positively recited the yarn in a charged state, but rather the claim recites a property of the yarn *upon* being, or when, subjected to a particular charging treatment. Thus, the new limitation is not necessarily given patentable weight at this time and the claim is rejected as being anticipated by Matsui.

In the event that said limitation is given weight, it is still asserted that the claim is anticipated by or obvious over Matsui. In particular, since the yarn of Matsui is chemically and structurally the same as that presently claimed, it follows that the properties of said yarn must be the same. The yarn of Matsui is capable of being treated by the claimed voltage and hence, capable of exhibiting the claimed corona current.

Art Unit: 1771

12. Claims 1-5, 10, and 101 stand rejected under 35 USC 102(b) as being anticipated by, or in the alternative, under 35 USC 103(a) as being unpatentable over US 5,102,727 issued to Pittman et al., as set forth in section 12 of the last Office Action.

### Claim Rejections - 35 USC § 103

- 13. Claims 8, 9, 11-14, and 19-29 stand rejected under 35 USC 103(a) as being unpatentable over the cited Pittman patent in view of Rodini (US 5,026,603), Matsui (US 4,420,534), and Kinlen (US 6,228,492), as set forth in section 13 of the last Office Action.
- 14. Claims 102 and 104 are rejected under 35 USC 103(a) as being unpatentable over the cited Matsui patent as applied to claims 1 and 14 above, and in further view of Rodini and Kinlen.

Matsui fails to teach a conductive component comprising a carbon-loaded polymer, or an inherently conductive polymer. However, Rodini teaches a bicomponent fiber made of a carbon-loaded conductive core and a non-conductive sheath (col. 1, lines 35-50). Additionally, Kinlen teaches inherently conductive polymeric fibers (abstract). Thus, it would have been obvious to one skilled in the art to substitute any of the known non-metallic, non-carbonized conductive fibers, such as those taught by Rodini or Kinlen, for the metallic conductive fibers of Matsui, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use. *In re Leshin*, 125 USPQ 416.

15. Claim 10 is rejected under 35 USC 103(a) as being unpatentable over Matsui in view of US 5,790,926 issued to Mizoe et al. and/or US 6,017,610 issued to Abe et al.

Art Unit: 1771

Additionally, claim 10 is rejected under 35 USC 103(a) as being unpatentable over the cited Pittman patent in view of US 5,790,926 issued to Mizoe et al. and/or US 6,017,610 issued to Abe et al.

Although the cited Matsui and Pittman do not explicitly teach the limitation that the conductive fiber is a solution-coated fiber, said fibers are well known in the art. For example, Mizoe teaches conductive fibers comprising coating nonconductive polymeric fibers with a conductive polymeric solution (col. 6, lines 20-67). Similarly, Abe teaches making nonconductive substrates, such as fibers, conductive by means of a conductive solution coated thereon (abstract, col. 2, lines 38-39, col. 3, lines 33-52, and col. 8, lines 20-30). Thus, it would have been obvious to one skilled in the art to substitute a known solution-coated conductive fiber, such as those taught by Mizoe and Abe, for the metallic conductive fibers of Matsui or Pittman, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use. *In re Leshin*, 125 USPQ 416. Thus, claim 10 is rejected as being obvious over the cited prior art.

16. Claim 105 is rejected under 35 USC 103(a) as being unpatentable over Matsui as applied to claim 19 above.

Additionally, claim 105 is rejected under 35 USC 103(a) as being unpatentable over the cited Pittman patent in view of the cited Rodini, Matsui, and Kinlen patents as applied to claim 19 above.

Although the cited prior art does not explicitly teach the limitation that at least part of the second longitudinally extending constituent is exposed on the outer surface of the fiber, said limitation is deemed obvious over the cited prior art. Specifically, such a modification would

Art Unit: 1771

have involved a mere change is shape of the components of the bicomponent fiber. A change in shape is generally recognized as being within the level of ordinary skill in the art. *In re Dailey*, 149 USPQ 47. Thus, claim 105 is rejected as being obvious over the prior art.

## Response to Arguments

17. Applicant's arguments filed with Amendment B have been fully considered but they are not persuasive. In particular, applicant traverses the 102 rejection by Matsui by asserting that the reference teaches a mix ratio of 10-100% for continuous filaments, rather than the presently claimed staple fibers (Amendment B, pages 7-8, section B). The examiner respectfully disagrees. Specifically, the passage from Matsui in question (col. 14, lines 46-59) is as follows:

The conductive composite filaments of the present invention can provide the antistatic property to the fibrous articles by being mixed with other natural or artificial fibers having the electric charging property in continuous filament form, staple form, non-crimped form, crimped form, undrawn form or drawn form. The usual mixed ratio is about 0.1-10% by weight of the composite filaments but of course, the mixed ratio of 10-100% by weight or less than 0.1% by weight is applicable. The mixing may be effected by blending, doubling, doubling and twisting, mix spinning, mix weaving, mix knitting and any other well known process.

This passage clearly teaches that the inventive filaments may be left in continuous filament form, may be cut into staple fiber length, may be crimped or uncrimped, or drawn or undrawn in order to be mixed with the conductive natural or synthetic filaments. This description of various forms describes the inventive fiber (or filament), rather than the additional natural or synthetic fibers, as applicant asserts. Additionally, the reference teaches the mixing may occur by "blending," which, in the art, is defined as "combining staple fibers of different physical characteristics to assure a uniform distribution of these fibers throughout the yarn." (See

Page 9

Art Unit: 1771

Hoechst Celanese's *Dictionary of Fiber and Textile Technology*, page 16.) Thus, this means at least two different staple fibers must be blended; the first staple fiber being the inventive fiber and the second staple fiber being the natural or synthetic fiber having an electric charge. Hence, applicant's arguments are found unpersuasive and the Matsui rejection is hereby maintained.

18. Applicant traverses the Pittman rejection by asserting that the reference does not teach staple fiber yarns as presently claimed (Amendment B, pages 8-9, section B). Once again the passage in question (Pittman, col. 3, lines 22-33) is as follows:

The high conductivity yarns may also be constructed from a conductive filament or spun fiber which is piled into a yarn with another, less conductive filament or spun fiber. One can readily see that the conductivity of a yarn can be readily varied by, for example, incorporating a greater or lesser number of conductive filaments relative to the number of non-conductive or low conductivity filaments. Alternatively, the conductive and non-conductive filaments or spun fibers are not twisted together to form a plied yarn, but are arranged in parallel and woven or knitted into the fabric as a single yarn.

This passage clearly teaches making conductive yarns from conductive filament yarns or spun fiber yarns by plying together other less conductive filament yarns or spun yarns. As is readily known in the yarn, "spun fiber yarns" are those yarns which are comprised of staple length fibers twisted together, while filament yarns are comprised of a multiple of continuous filaments. (See Hoechst Celanese's *Dictionary of Fiber and Textile Technology*, pages 149 and 60, respectively.) Thus, Pittman clearly teaches yarns made of staple fibers. Hence, applicant's arguments are found unpersuasive and the Pittman rejection is maintained.

19. With respect to the rejection based upon Pittman in view of Rodini, Matsui, and Kinlen, applicant argues Rodini and Matsui teach away from the claimed invention, while Kinlen is silent with respect to staple fibers (Amendment B, page 9, section C). In response, it is noted that Kinlen is relied upon to teach fibers that are inherently conductive are known in the art.

Art Unit: 1771

Kinlen need not explicitly teach staple length fibers, since all continuous filaments are inherently capable of being cut into staple length fibers. Thus, it would have been obvious to substitute the conductive fibers of Kinlen for the conductive fibers of Pittman, as set forth in the last Office Action. Additionally, Rodini is merely relied upon for its teaching of bicomponent conductive core/non-conductive sheath fibers, which could obviously be substituted for the conductive fibers of Pittman. Furthermore, contrary to applicant's assertion, Matsui does teach staple length fibers, as described above. Hence, applicant's arguments are unpersuasive and the rejection is maintained.

### Allowable Subject Matter

The previously indicated allowable subject matter of claims 15-18, now new claims 106-112, is hereby withdrawn. A rejection on said new claims is set forth below.

#### Claim Rejections - 35 USC § 103

21. Claims 1-5, 8, 12-14, 22-25, 106-108 and 110 are rejected under 35 USC 103(a) as being unpatentable over US 6,242,094 issued to Breznak et al.

New claim 106 is drawn to a yarn comprising at least 35% staple fibers selected from the group of consisting of non-metallic conductive fibers, quasi-conductive fibers, and mixtures thereof, wherein the staple fibers comprise at least some bicomponent non-metallic conductive fibers comprising a core of a non-conductive polymer and a sheath around at least part of the core comprised of a conductive material. The fiber has a DC linear resistance of less than about 10° ohms/cm. Claim 107 limits the sheath to entirely surround the core. Claim 108 limits the

Art Unit: 1771

yarn to being at least 50% of the staple fibers. Claims 110-112 limit the conductive material to being a carbon-loaded polymer, a polymer loaded with antimony-doped tin oxide, and an inherently-conductive polymer, respectively.

Breznak discloses an antistatic bicomponent fiber comprising a nonconductive polymeric core and a conductive polymeric sheath (abstract and col. 1, lines 54-col. 2, line 11). The bicomponent fiber has a resistance of less than 10<sup>8</sup> ohm/cm (col. 2, lines 11-12). The fiber can be employed as a monofilament yarn, multifilament yarn, or a staple fiber (col. 2, lines 12-14). The sheath is made conductive by means of carbon loading or by incorporation of metal particles (col. 2, lines 57-62 and col. 3, lines 49-52).

Hence, Breznak teaches the invention of claims 106-108 and 110 with the exception that the staple fiber may be made into a yarn. However, it would have been instantly obvious to one of ordinary skill in the art to spin a yarn from the staple fibers of Breznak, since the primary use of staple fibers is to make yarns therefrom. Additionally, it would have been obvious to one of ordinary skill in the art to make said yarn from 100% of the inventive bicomponent fibers in that Breznak is silent with respect to blending the fibers with other non-conductive fibers. Thus, said claims are rejected as being obvious over Breznak.

22. Claims 1-5, 8, 12-14, 19-29, 106-108 and 110 are rejected under 35 USC 103(a) as being unpatentable over US 5,698,148 issued to Asher et al.

Asher discloses an electrically conductive bicomponent fiber comprised of a nonconductive core and a conductive sheath (abstract). The thermoplastic polymer sheath is made conductive with carbon black or other conductive material (col. 3, lines 63-66). The fiber preferably has a resistance of less than 10<sup>9</sup> ohm/cm (col. 5, lines 52-56). The fiber may be

Art Unit: 1771

blended with other fibers to form a staple fiber yarn (col. 5, line 65-col. 6, line 7). The inventive fiber is blended with other fibers in a ratio of 5-25% by weight (col. 6, lines 3-19). Asher also teaches that other arrangements than conductive sheath/nonconductive core, such as nonconductive sheath/conductive core or side-by-side fibers, can be made (col. 4, lines 12-16).

Thus, Asher teaches the presently claimed invention with the exception that the conductive bicomponent fiber is present in the yarn in an amount of at least 35%. However, it would have been obvious to one skilled in the art to employ an increased amount of conductive fibers in the staple yarn taught by Asher, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 205 USPQ 215. In this case, Asher teaches "the larger the blend ratio, the stronger the antistatic property." Specifically, "the fibrous products may be made to be antistatic or even conductive, depending on the blending ratio" (col. 6, lines 14-18).

With respect to claim 19 it is argued that the claimed arrangement would have been obvious to one skilled in the art. Specifically, Asher teaches arrangements other than conductive sheath/nonconductive core are within the scope of the invention. Additionally, such a modification would have involved a mere change is shape of the components of the bicomponent fiber. A change in shape is generally recognized as being within the level of ordinary skill in the art. *In re Dailey*, 149 USPO 47.

Therefore, claims 1-5, 8, 12-14, 19-29, 106-108 and 110 are rejected as being obvious over Asher.

23. Claims 9 and 111 are rejected under 35 USC 103(a) as being unpatentable over the cited Breznak or Asher patents in view of the cited Matsui patent.

Art Unit: 1771

Breznak teaches the conductive polymeric sheath may be made conductive by incorporation of metal particles into the polymer. Similarly, Asher teaches conductive materials other than carbon black may be employed. However, Breznak and Asher are both silent with respect to the type of particles suitable. Hence, one must look to the prior art, such as Matsui, which teaches antimony doped tin oxide particles as suitable metal oxide particles for incorporation into a polymeric fiber. Thus, it would have been obvious to one skilled in the art to employ the antimony doped tin oxide particles for the metal particles taught by Breznak or the other conductive material taught by Asher, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use. *In re Leshin*, 125 USPQ 416.

24. Claim 10 is rejected under 35 USC 103(a) as being unpatentable over the cited Breznak patent in view of the cited Mizoe and/orAbe patents.

Additionally, claim 10 is rejected under 35 USC 103(a) as being unpatentable over the cited Asher patent in view of the cited Mizoe and/orAbe patents.

Although the cited Breznak and Asher do not explicitly teach the limitation that the conductive fiber is a solution-coated fiber, said fibers are well known in the art. For example, Mizoe teaches conductive fibers comprising coating nonconductive polymeric fibers with a conductive polymeric solution (col. 6, lines 20-67). Similarly, Abe teaches making nonconductive substrates, such as fibers, conductive by means of a conductive solution coated thereon (abstract, col. 2, lines 38-39, col. 3, lines 33-52, and col. 8, lines 20-30). Thus, it would have been obvious to one skilled in the art to substitute a known solution-coated conductive fiber, such as those taught by Mizoe and Abe, for the metallic conductive fibers of Breznak or

Page 14

Application/Control Number: 09/586,201

Art Unit: 1771

Asher, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use. *In re Leshin*, 125 USPQ 416.

25. Claim 11 and 112 are rejected under 35 USC 103(a) as being unpatentable over the cited Breznak patent or Asher patent in view of Kinlen.

Breznak and Asher are silent with respect to a teaching of an inherently conductive polymer as the polymeric sheath. However, said polymers are well known in the art. For example, Kinlen teaches inherently conductive polymeric fibers (abstract). Thus, it would have been obvious to one skilled in the art to substitute the inherently conductive polymer for the conductive polymer of Breznak or Asher, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use. *In re Leshin*, 125 USPQ 416.

#### Conclusion

- 26. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
- 27. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Cheryl Juska whose telephone number is 703-305-4472. The Examiner can normally be reached on Monday-Friday 10am-6pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Art Unit: 1771

Page 15

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.